

## ABSTRACT OF THE DISCLOSURE

1           An interleaved coding method can be used in a transmitter, in which the two or  
2 more pseudonoise (PN) codes are interleaved to form a longer interleaved code. The  
3 method can be used in a transmitter that includes a first code generator generating a first  
4 code of  $n$  symbols, and a second code generator generating a second code of  $m$  symbols,  
5 where  $n$  and  $m$  can be mutually prime, such as  $m=n+1$ . An interleave unit is coupled to  
6 the first and second code generators, and interleaves the symbols of the first code with  
7 the symbols of the second code to output an interleaved code. The interleaved code has  
8 a period longer than either of the constituent PN codes, providing for much increased  
9 noise tolerance over using the short codes alone, and can be detected at a much lower  
10 hardware and time cost than if using a single PN code of equal length.